Paul Ferrand

Senior Researcher

27 rue Rieussec, 3 square Vauban
78220 Viroflay, France
+33 6 63 91 83 03
✉ *paul@ferrand.cc*
http://www.ferrand.cc
35 y.o.

Current status

Since Oct.2014 **Senior Researcher**, *Huawei Technologies*, French Research Center.
I joined the Signal and Information Processing team of Huawei's research center in Paris in 2014. I am working as an internal consultant, providing expertise to other teams on prototypes and products by working closely with them to understand, model and solve hard problems they encounter during development. I also develop and maintain the simulation platforms and technological assets of my team, and I regularly publish papers and propose patents on the subjects I work on.

Since Feb.2014 **Assistant Professor in Applied Mathematics and Computer Science**.
I am a trained undergraduate/graduate professor with more than 500 hours of lectures and labs. I teach around 40 hours each year in universities on subjects related to mathematics, numerical analysis and signal processing.

Training

2009-2013 **Ph.D. in Electrical Engineering**, *INSA Lyon*, CITI Laboratory.

2008-2009 **M.Sc. in Computer Science**, *INSA Lyon*, Computer Science Department, (with honors).

2003-2008 **M.Eng. in Computer Science**, *INSA Lyon*, Computer Science Department.

Work experiences

2013-2014 **Post-doctoral fellow**, *Inria*, Socrate team, Lyon.
- Distributed interference alignment for cellular networks

2012-2013 **Assistant Professor**, *INSA Lyon*.
- Teaching classes on computer networking, network security, programming languages and databases.

2009-2012 **Ph.D. Student**, *CITI Laboratory*, INSA Lyon.
- *Advisors : Dr. Claire Goursaud and Pr. Jean-Marie Gorce*
- Cooperative communications in Body Area Networks

2009 **M.Sc. student**, *CITI Laboratory*, INSA Lyon.
- *Advisor : Pr. Marine Minier*
- Cryptanalysis of hashing functions derived from the AES block cipher

And before:.
- Research engineer in 2008-2009, implementing cryptographic primitives on embedded systems
- Part-time technical support specialist in 2005-2007 for Microsoft

Technical abilities

Maths Signal processing, statistics and machine learning, optimization theory, information theory

Programming Python, C++, C ; notions in Kotlin, Java, C#

Tools MATLAB, Numpy, Tensorflow, Mathematica, LaTeX

Others I am a senior member of the Institute of Electrical and Electronics Engineers (I.E.E.E.)

Others

Languages Fluent in french and english; beginner in japanese and chinese.

Hobbies I play guitar and piano, and I love to spend time integrating and developing audio applications. I develop `sfizz`, a high performance cross-platform sampler and synthetizer library. I am also a co-author of "La méthode Diapason", a guitar method aimed at mastering campfire-style accompaniment techniques and developing musical activities for kids.

Volunteering I am a trained camp counselor and director for various non-profit youth organizations in France. In the past 10 years, I organized gatherings and camps from 50 to 12000 people, including thematic camps where teenagers develop and share their talents in music, cinema, photography and theatre.